

Claims

1. A computer-implemented method for accessing data from a semaphore in a computer system, comprising:

5 including a first software component in a first application, wherein the first software component is operable to access data from the semaphore, wherein the semaphore is stored in a computer memory, wherein the data comprised in the semaphore has a first data type of a plurality of different data types;

executing the first application;

10 receiving a uniform resource locator (URL) which specifies a location of the semaphore, wherein the location information is received in response to user input;

the first software component connecting to the computer memory using the location information;

the first software component accessing the data comprised in the semaphore; and

15 the first software component converting the data into a format useable by the first application after the first software component connects to the computer memory and receives the data.

20 2. The method of claim 1, wherein the first software component performs a locked read-modify-write operation on the data comprised in the semaphore.

3. The method of claim 1, wherein the first software component accessing the data comprised in the semaphore comprises:

the first software component locking the semaphore;

25 the first software component reading the data comprised in the semaphore;

the first software component writing new data to the semaphore; and

the first software component unlocking the semaphore after said writing new data to the semaphore.

4. The method of claim 3, further comprising:
receiving one or more requests to perform a locked read-modify-write operation
on the data comprised in the semaphore from other software components;
5 storing said one or more requests in a queue; and
wherein said one or more requests are processed after said unlocking.

5. The method of claim 1, further comprising:
the first application receiving and processing the data after said converting;
10 wherein the first application uses the data comprised in the semaphore to
synchronize operations with a second application executing on a second computer
system.

6. The method of claim 5, further comprising:
15 the first software component notifying the application that the data has been
obtained after the software component connecting to the semaphore and receiving the
data; and
wherein the application receives and processes the data after said notifying.

7. The method of claim 5, wherein the software component connecting to the
20 semaphore, the software component receiving the data, the software component
converting the data, and the application receiving and processing the data are performed a
plurality of times.

8. The method of claim 1, wherein the software component connecting to the
25 semaphore, the software component receiving the data, and the software component
converting the data are performed without any user programming required.

9. The method of claim 1, wherein the format is a self-describing format.

10. The method of claim 1, wherein said converting comprises converting the data into a generic format.

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11. The method of claim 1, wherein said converting comprises:

converting the data into a first format, wherein the first format includes the data and one or more attributes of the data.

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12. The method of claim 1, wherein the first software component is comprised in a first computer system, further comprising:

including a second software component in a second application, wherein the second software component is comprised in a second computer system, wherein the second software component is operable to access data from the semaphore;

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executing the second application;

receiving a uniform resource locator (URL) which specifies a location of the semaphore, wherein the location information is received in response to user input;

the second software component connecting to the computer memory and receiving the data comprised in the semaphore using the location information; and

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the second software component converting the data into a format useable by the second application after the second software component connects to the computer memory and receives the data.

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13. The method of claim 12, wherein the first and second applications use the semaphore to synchronize operation of the first and second applications.

14. The method of claim 12, wherein the first computer system, the second computer system, and the computer memory are connected through a network.

15. The method of claim 12, wherein the computer memory storing the semaphore is comprised in one of the first computer system or the second computer system.

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16. The method of claim 1, wherein accessing data from a semaphore in a computer system comprises publishing or writing data to the semaphore.

10 17. A system which enables a first computer system to access a semaphore in a computer memory, the system comprising:

the computer memory which stores the semaphore, wherein the semaphore is operable to store data corresponding to one of a plurality of different data types;

15 the first computer system, wherein the first computer stores a first software component, wherein the first software component is operable to read/write the semaphore, wherein the first software component is operable to access data from the semaphore independent of the data type of the data comprised in the semaphore;

wherein the first software component is operable to receive a uniform resource locator (URL) which specifies a location of the semaphore, wherein the URL is received in response to user input;

20 wherein the first software component is operable to connect to the computer memory and access the semaphore using the URL; and

wherein the first software component is operable to convert the data into a format useable by a first application executing in the first computer system after the first software component connects to the computer memory and accesses the semaphore.

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18. The system of claim 17, wherein the first software component is comprised in a first computer system, further comprising:

including a second software component in a second application, wherein the second software component is comprised in a second computer system, wherein the second software component is operable to access data from the semaphore;

executing the second application;

5 wherein the second software component is operable to receive a uniform resource locator (URL) which specifies a location of the semaphore, wherein the URL is received in response to user input;

the second software component connecting to the computer memory and receiving the data comprised in the semaphore using the location information; and

10 the second software component converting the data into a format useable by the second application after the second software component connects to the computer memory and receives the data.

15 19. A system which enables a plurality of computer systems to share a semaphore in a computer memory, the system comprising:

a computer memory which stores the semaphore, wherein the semaphore is operable to store data corresponding to one of a plurality of different data types;

20 wherein each computer system of the plurality of computer systems stores a corresponding software component in a corresponding application, wherein the corresponding software component is operable to access the semaphore, wherein the semaphore data comprises a first data type of a plurality of different data types;

wherein each software component is operable to receive a uniform resource locator (URL) which specifies a location of the semaphore, wherein the URL is received in response to user input;

25 wherein each software component is operable to connect to the semaphore and receiving the data comprised in the semaphore using the URL; and

wherein each software component converts the data into a format useable by its corresponding application after each software component connects to the semaphore and receives the data.

20. The system of claim 19, wherein one or more of the corresponding software components perform a locked read-modify-write operation on the data comprised in the semaphore.

21. The system of claim 19, further comprising:
each corresponding application receiving and processing the data after said converting.

22. The system of claim 19, wherein each software component connecting to the semaphore, each software component receiving the data, and each software component converting the data are performed without any user programming required.

23. The system of claim 19, wherein said converting comprises:
converting the data into a first format, wherein the first format includes the data and one or more attributes of the data.

24. A memory medium comprising program instructions for accessing data from a semaphore in a computer system, wherein the memory medium stores:

a software component operable to be included in an application, wherein the software component is operable to access data from the semaphore, wherein the data comprised in the semaphore has a first data type of a plurality of different data types;

wherein the software component is operable to receive a uniform resource locator (URL) which specifies the semaphore, wherein the URL is received in response to user input;

wherein the software component is operable to connect to the semaphore and receive the data comprised in the semaphore using the URL; and

wherein the software component is operable to convert the data into a format useable by the application after the software component connects to the semaphore and receives the data.

25. The memory medium of claim 24, wherein the software component performs a locked read-modify-write operation on the data comprised in the semaphore.

26. The memory medium of claim 24, further comprising:
the application receiving and processing the data after said converting.

27. The memory medium of claim 24, wherein the software component connecting to the semaphore, the software component receiving the data, and the software component converting the data are performed without any user programming required.

28. The memory medium of claim 24, wherein said converting comprises:
converting the data into a first format, wherein the first format includes the data and one or more attributes of the data.